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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/751,458 | 01/06/2004 | Jinn-Kang Wang | 4658-009 | 2355 |
| 22429 | 7590 | 06/30/2005 | EXAMINER | |
| LOWE HAUPTMAN GILMAN AND BERNER, LLP | | | SOHN, SEUNG C | |
| 1700 DIAGONAL ROAD | | | ART UNIT | |
| SUITE 300 /310 | | | PAPER NUMBER | |
| ALEXANDRIA, VA 22314 | | | 2878 | |

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 10/751,458 | Applicant(s) WANG, JINN-KANG | |
| | Examiner Seung C. Sohn | Art Unit 2878 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The disclosure is objected to because of the following informalities:
On page 2, line 6, "the laser diode 12" should be changed to "laser diode 11".
Appropriate correction is required.

Claim Objections

3. **Claim 9** is objected to because of the following informalities:
On claim 9, line 4, "a polarized beam light" should be changed to "a polarized beam splitter".
Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. **Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, line 5, "the signal polarized light" and "the signal of polarized light" lack antecedent basis. Regarding claim 2, line 2, "the

collimator" lacks antecedent basis. Also, claim 2, line 2, "the polarized light" is not clear and confusing as to which polarized light it refers. The linear polarized light or the signal polarized light? Clarification is required. Regarding claim 9, line 3, "the 45 degree phase angle" and line 14, "the signal with polarized light" lack antecedent bases. Regarding claim 10, line 3, "The feedback polarized light" lacks an antecedent basis.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. ***Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Schmitz et al. (Patent Application Pub. No. US 2002/0088922 A1 published on July 11, 2002).***

Regarding claims 1-10, AAPA shows in Fig. 1 a laser diode (11) which emits linear polarized light; a polarized beam splitter (12) which reflects the original linear polarized light to right-hand circular polarized light and passes through the left-hand circular polarized light; a collimator (14) which corrects the right-hand circular polarized light to parallel light; an objective lens (15) which focuses the right-hand circular polarized light to optical disk (16) which reflected by optical disk in which reflected light is a left-hand circular polarized light; and a photodetector (17) which detects the signal with polarized light, wherein the polarized beam splitter can produce -45 degree phase

angle and the feedback polarized light with -45 degree phase angle going to light source has a phase shift 90 degree compared with original linear polarized light. AAPA does not disclose a laser diode which emits linear polarized light with 45 degree phase angle. Schmitz et al. shows in Fig. 6 a laser diode (210) which emits linearly polarized light with 45 degree phase angle (Page 4, paragraph 0033). It would have been obvious to provide the laser diode of Schmitz et al. to the device of AAPA for the purpose of differentiating light.

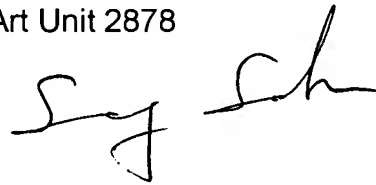
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seung C. Sohn whose telephone number is (571) 272-2446. The examiner can normally be reached on Monday through Friday from 8:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Seung C. Sohn
Examiner
Art Unit 2878

A handwritten signature in black ink, appearing to read 'Seung C. Sohn', is written below the printed name and title.